

# SJ300 Dynamic Braking Selection Chart

## 1/2 to 15 hp (0.4 to 11 kW)

Voltage Class	Model Number	Motor hp	Internal Resistor		With Optional External Resistor		Minimum Resistance		Minimum Resistance for 100% Braking Duty Cycle (ohms)
			Braking Unit	Braking Torque @ 60 Hz (Without External Resistor) (%)	External Resistance (ohms)	Braking Torque @ 60 Hz (%)	Minimum Resistance (ohms)	Maximum Braking Duty Cycle (%)	
200	SJ300-004LFU	1/2	Built in	50	50	200	50	10	150
	SJ300-007LFU	1	Built in	50	50	200	50	10	150
	SJ300-015LFU	2	Built in	50	35	200	35	10	100
	SJ300-022LFU	3	Built in	20	35	160	35	10	100
	SJ300-037LFU	5	Built in	20	35	100	35	10	100
	SJ300-055LFU	7.5	Built in	20	17	80	17	10	50
	SJ300-075LFU	10	Built in	20	17	80	17	10	50
	SJ300-110LFU	15	Built in	10	17	70	17	10	50
400	SJ300-007HFU	1	Built in	50	100	200	100	10	300
	SJ300-015HFU	2	Built in	50	100	200	100	10	300
	SJ300-022HFU	3	Built in	20	100	200	100	10	300
	SJ300-040HFU	5	Built in	20	100	140	70	10	200
	SJ300-055HFU	7.5	Built in	20	70	100	70	10	200
	SJ300-075HFU	10	Built in	20	70	100	50	10	150
	SJ300-110HFU	15	Built in	10	70	70	50	10	150

# SJ300 Dynamic Braking Selection Chart

## 20 to 75 hp (15 to 55 kW)

Voltage Class	Model Number	Motor hp	Braking Torque Without External Braking Unit (%)	Applicable External Braking Unit Model	Minimum Resistance (ohms)	Maximum Braking Duty Cycle (%)	Minimum Resistance for 100% Braking Duty Cycle (ohms)	Applicable External Braking Unit Model	Minimum Resistance (ohms)	Maximum Braking Duty Cycle (%)	Minimum Resistance for 100% Braking Duty Cycle (ohms)
200	SJ300-150LFU	20	10	BRD-E2	17	10	46	BRD-E2-30K	4	20	6
	SJ300-185LFU	25	10	BRD-E2	17	10	46	BRD-E2-30K	4	20	6
	SJ300-220LFU	30	10	BRD-E2	17	10	46	BRD-E2-30K	4	20	6
	SJ300-300LFU	40	10	BRD-E2-30K	2	20	4				
	SJ300-370LFU	50	10	BRD-E2-55K	2	20	4				
	SJ300-450LFU	60	10	BRD-E2-55K	2	20	4				
	SJ300-550LFU	75	10	BRD-E2-55K	2	20	4				
400	SJ300-150HFU	20	10	BRD-EZ2	20	10	34	BRD-EZ2-30K	10	10	24
	SJ300-185HFU	25	10	BRD-EZ2	20	10	34	BRD-EZ2-30K	10	10	24
	SJ300-220HFU	30	10	BRD-EZ2	20	10	34	BRD-EZ2-30K	10	10	24
	SJ300-300HFU	40	10	BRD-EZ2-55K	6	20	12				
	SJ300-370HFU	50	10	BRD-EZ2-55K	6	20	12				
	SJ300-450HFU	60	10	BRD-EZ2-55K	6	20	12				
	SJ300-550HFU	75	10	BRD-EZ2-55K	6	20	12				

## SJ300 Dynamic Braking Resistor Selection Chart 200 V Class

Model Number	JRB Series				SRB/NSRB Series				HRB Series				Available Braking Torque (%)
	Type (& Quantity)	Total Ohms	Total Watts	Max. Duty Cycle (%)	Type (& Quantity)	Ohms	Watts	Max. Duty Cycle (%)	Type (& Quantity)	Total Ohms	Total Watts	Max. Duty Cycle (%)	
SJ300-004LFU	120-3	50	120	1.5	300-1	50	300	7.5					200
SJ300-007LFU	120-3	50	120	1.5	300-1	50	300	7.5					200
SJ300-015LFU	120-4	35	120	1	400-1	35	400	7.5					200
SJ300-022LFU	120-4	35	120	1	400-1	35	400	7.5					160
SJ300-037LFU	120-4	35	120	1	400-1	35	400	7.5					100
SJ300-055LFU	120-4 x (2) in parallel	17.5	240	1	400-1 x (2) in parallel	17.5	800	7.5	HRB3	17	1200	10	80
SJ300-075LFU	120-4 x (2) in parallel	17.5	240	1	400-1 x (2) in parallel	17.5	800	7.5	HRB3	17	1200	10	80
SJ300-110LFU	120-4 x (2) in parallel	17.5	240	1	400-1 x (2) in parallel	17.5	800	7.5	HRB3	17	1200	10	70
<b>Braking Characteristics using the following Resistors in conjunction with Braking Unit BRD-E2:</b>													
SJ300-150LFU									HRB1	50	400	10	30
									HRB2	35	600	10	35
									HRB3	17	1200	10	60
SJ300-185LFU									HRB1	50	400	10	25
									HRB2	35	600	10	30
									HRB3	17	1200	10	50
SJ300-220LFU									HRB1	50	400	10	25
									HRB2	35	600	10	30
									HRB3	17	1200	10	45
<b>Braking Characteristics using the Following PARALLEL Resistor Combinations in conjunction with Braking Unit BRD-E2-30K:</b>													
SJ300-150LFU									(2) x HRB3	8.5	2400	20	110
									(3) x HRB3	5.7	3600	20	150
									(4) x HRB3	4.3	4800	20	200
SJ300-185LFU									(2) x HRB3	8.5	2400	20	90
									(3) x HRB3	5.7	3600	20	130
									(4) x HRB3	4.3	4800	20	170
SJ300-220LFU									(2) x HRB3	8.5	2400	20	80
									(3) x HRB3	5.7	3600	20	110
									(4) x HRB3	4.3	4800	20	150
SJ300-300LFU									(2) x HRB3	8.5	2400	20	55
									(3) x HRB3	5.7	3600	20	80
									(4) x HRB3	4.3	4800	20	110
SJ300-370LFU									(2) x HRB3	8.5	2400	20	45
									(3) x HRB3	5.7	3600	20	65
									(4) x HRB3	4.3	4800	20	90
SJ300-450LFU									(2) x HRB3	8.5	2400	20	35
									(3) x HRB3	5.7	3600	20	50
									(4) x HRB3	4.3	4800	20	75
SJ300-550LFU									(2) x HRB3	8.5	2400	20	30
									(3) x HRB3	5.7	3600	20	40
									(4) x HRB3	4.3	4800	20	60

## SJ300 Dynamic Braking Resistor Selection Chart

### 400 V Class

Model Number	JRB Series				SRB/NSRB Series				HRB Series				Available Braking Torque (%)
	Type (& Quantity)	Total Ohms	Total Watts	Max. Duty Cycle (%)	Type (& Quantity)	Ohms	Watts	Max. Duty Cycle (%)	Type (& Quantity)	Total Ohms	Total Watts	Max. Duty Cycle (%)	
SJ300-007HFU	120-2	100	120	1.5	200-2	100	200	7.5					200
SJ300-015HFU	120-2	100	120	1.5	200-2	100	200	7.5					200
SJ300-022HFU	120-2	100	120	1.5	200-2	100	200	7.5					200
SJ300-040HFU	120-2	100	120	1.5	200-2	100	200	7.5	HRB1 x (2) in series	100	800	10	140
SJ300-055HFU	120-4 x (2) in series	70	120	1	400-1 x (2) in series	70	800	7.5	HRB2 x (2) in series	70	1200	10	100
SJ300-075HFU	120-4 x (2) in series	70	240	1	400-1 x (2) in series	70	800	7.5	HRB2 x (2) in series	70	1200	10	100
SJ300-110HFU	120-4 x (2) in series	70	240	1	400-1 x (2) in series	70	800	7.5	HRB2 x (2) in series	70	1200	10	70
<b>Braking Characteristics using the following SERIES Resistor Combinations in conjunction with Braking Unit BRD-EZ2:</b>													
SJ300-150HFU									HRB1 x (2) in series	100	800	10	40
									HRB2 x (2) in series	70	1200	10	60
									HRB3 x (2) in series	34	2400	10	110
SJ300-185HFU									HRB1 x (2) in series	100	800	10	40
									HRB2 x (2) in series	70	1200	10	50
									HRB3 x (2) in series	34	2400	10	90
SJ300-220HFU									HRB1 x (2) in series	100	800	10	35
									HRB2 x (2) in series	70	1200	10	45
									HRB3 x (2) in series	34	2400	10	80
<b>Braking Characteristics using the Following SERIES/PARALLEL Resistor Combinations in conjunction with Braking Unit BRD-EZ2-30K:</b>													
SJ300-150HFU									HRB4 x (4) (2) parallel (2) series	17	3200	10	190
									HRB3 x (6) (3) parallel (2) series	11.3	7200	10	200
SJ300-185HFU									HRB4 x (4) (2) parallel (2) series	17	3200	10	170
									HRB3 x (6) (3) parallel (2) series	11.3	7200	10	200
SJ300-220HFU									HRB4 x (4) (2) parallel (2) series	17	3200	10	150
									HRB3 x (6) (3) parallel (2) series	11.3	7200	10	200
<b>Braking Characteristics using the Following SERIES/PARALLEL Resistor Combinations in conjunction with Braking Unit BRD-EZ2-55K:</b>													
SJ300-300HFU									HRB4 x (4) (2) parallel (2) series	17	3200	10	110
									HRB3 x (6) (3) parallel (2) series	11.3	7200	10	170
SJ300-370HFU									HRB4 x (4) (2) parallel (2) series	17	3200	10	90
									HRB3 x (6) (3) parallel (2) series	11.3	7200	10	150
SJ300-450HFU									HRB4 x (4) (2) parallel (2) series	17	3200	10	70
									HRB3 x (6) (3) parallel (2) series	11.3	7200	10	120
SJ300-550HFU									HRB4 x (4) (2) parallel (2) series	17	3200	10	60
									HRB3 x (6) (3) parallel (2) series	11.3	7200	10	100